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ABSTRACT

In 1986-87, Schools for Quality Education, an organization of some 80 small schools in Kansas, and the Center for Rural Education and Small Schools (College of Education, Kansas State University) jointly investigated the effectiveness of representative smaller schools serving rural areas in Kansas. The study, which was conducted in two phases, determined the generally accepted quality indicators of effective schools deemed important in local communities and the extent to which these were present in their schools; the relationship between perceived quality/effectiveness and district wealth, expenditures, enrollment, pupil/teacher ratio and size; and profiles of districts having the lowest and highest quality and effectiveness. The Executive Summary contains only the data from phase 2, which determined the extent to which the indicators were found in the local schools. All of the variables were rated above the mid-point of the 5-point scale, and every respondent group seemed to be satisfied that indicators were found in their schools. Five data tables show perceptions of the 31 variables, profiles for the 5 districts perceived to be most effective and the 5 perceived to be least effective, and percentages of group perceptions of school quality and effectiveness on certain qualitative questions. An additional table summarizes overall perceived school effectiveness and related school district data. (JMM)

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A STUDY OF THE PERCEIVED EFFECTIVENESS OF KANSAS SMALL SCHOOLS

Executive Summary

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A project jointly sponsored by the Schools for Quality Education and the Center for Rural Education and Small Schools of the College of Education at Kansas State University.

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A Study of the
Perceived Effectiveness of Kansas Small Schools

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Executive Summary

Over time, various indicators of school quality and effectiveness have been described and defended. Quality has often been measured by the number and types of courses being offered, the number of books in the library, the percentage of teachers with advanced degrees, the copyright recency of textbooks, etc. -- largely quantifiable measures associated with the schooling process. At the same time, effectiveness has been determined by students' scores on standardized achievement tests, the number of students who are awarded college scholarships, the percentage of students who attend college and/or are accepted into prestigious institutions, etc. More recently, attention related to effectiveness and usually described as the "effective schools research" has been focused on those factors contributing to the achievement of children, regardless of socio-economic status.

Generally, it has been found that schools in which all children achieve have several common characteristics: (1) safe and orderly environment; (2) clear school mission; (3) instructional leadership of the prinicpal; (4) high expectations for student achievement; (5) student opportunity to learn and time on task; (6) frequent monitoring of student progress; and (7) supportive home-school relations. Throughout the literature, other indicators of effectiveness are described, including emphasis on higher-order thinking skills, small class size, closeness of teachers to students,

good student attendance, type of instruction, opportunities for student leadership, development of good work ethics, preparation of students to become good adult citizens, etc. Talbert, et al (1987) summarized the characteristics of effective schools, based on the work of Brandt (1982), Austin (1979) and Siquires (1980), as (a) strong administrative leadership, (b) active involvement of the principal as the instructional leader, (c) safe and orderly climate, (d) warm responsive teachers with high expectations for students, (e) close monitoring of student achievement with no student being allowed to fall below minimal mastery, (f) commonly understood school purposes and goals, (g) school-wide emphasis on instruction, and (h) use of rewards and positive reinforcement rather than punishment.

By inference, the Schools for Quality Education, an organization of some eighty small public school districts in Kansas, has identified its perception of effectiveness, at least in part, by identifying how rural is "more" (or "less") than non-rural schools. Among these variables are dropout rate, frequency of discipline problems, opportunities for individual student recognition, attitudes, self-image and respect, etc.

In essence, quality and effectiveness are determined by a wide variety of variables, which are selected according to individual biases and values. Seldom, if ever, has there been a conscious effort to develop a comprehensive amelioration of perceptions among students, parents, administrators and teachers about the expectations of quality and effectiveness of schools and the degree to which small/rural schools fulfill these expectations.

Purpose of the Study

The purpose of this study was (1) to identify characteristics perceived by students, educators, school board members and the community to be the most important indicators of school quality and effectiveness, (2) to determine the degree to which these characteristics are present in selected small/rural schools, (3) to show the relationship, if any, between perceived quality/effectiveness and the wealth of the district, per pupil expenditure, enrollment of the district, pupil/teacher ratio and size of the district, and (4) to provide a profile of the districts perceived to have the highest and the lowest quality and effectiveness.

Subjects

The school districts used in this study were randomly selected from a pool of all public school districts in Kansas with a K-12 enrollment of less than 1,000 and which met the U.S. census definition of rural, i.e. "all persons living outside urbanized areas in the open country or in communities with less than 2,500 inhabitants." It also includes those living in areas of extended cities with a population density of less than 1,000 inhabitants per square mile. The design of the study, described later, included two phases. It was planned to have 25 districts participate in each phase. Assuming there would be some attrition, invitations of participation were sent to 30 school districts for each phase. The resulting participation included 27 school districts for Phase 1 and 28 school districts for Phase 2. Within each district, the following groups of respondents were eligible for participation.

1) high school students (11th grade English class)

2) junior high/middle school students (8th grade language arts or social studies class)

3) teachers (all elementary, junior high/middle school)

4) building administrators (all K-12)

5) district superintendent

6) school board members

7) adult members of the community (25 from the telephone directories serving the district)

Results

The data derived from this study are extensive, but, for purposes of this Executive Summary, only data from Phase 2 are included. The data in Table A reflect the extent to which the 31 selected indicators of quality/effective schools listed on the PSQE were perceived to be present in the respondents' local schools. The options and numerical value of each response option for the items are listed below.

5 = Definitely present or true

4 = Usually present or true

3 = Undecided or not able to observe

2 = Seldom present or true

1 = Never present or true

0 = Do not understand the statement

The "0" response (Do not understand the statement) was not used in the statistical analyses.

The five variables judged highest or more definitely present or true, based on total responses, are shown below.

a. Students take two or more years of science and math (4.50)

b. Teachers have good attendance (4.50)

c. School maintains safe environment (4.39)

d. A low crime rate exists (4.33)

e. Teachers are well prepared (4.28)

Overall, none of the 31 variables which were selected as the most important from among 76 considered in Phase 1 of this study, was rated below the mid-

Table A
Summary of Perceptions of School Quality and Effectiveness
Variable 1 through 31 by Responding Groups -- Across All School Districts

Phase - 2

Q. #	Item	Students		Teachers		Admin.		BOE		Community		All *	
		$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
1.	Direct instruction is provided	3.96	.77	4.38	.68	4.05	.84	3.93	.74	3.74	.86	4.12	.77
2.	Teachers are well prepared	4.25	.78	4.39	.65	4.38	.73	3.98	.77	3.94	.85	4.28	.74
3.	Students have good work ethics	3.50	.88	3.64	.81	3.71	.76	3.70	.75	3.52	.89	3.58	.85
4.	Schools provide emotional support	3.29	1.17	3.92	.86	4.04	.77	3.87	.87	3.72	1.05	3.63	1.07
5.	Creative teaching exists	3.47	1.09	3.95	.78	3.95	.80	3.90	.91	3.74	1.04	3.72	.98
6.	High expectations of students	3.91	1.00	4.08	.88	4.10	.76	4.07	.94	3.80	.96	3.98	.94
7.	Carefully structured instruction	3.69	.98	4.06	.71	3.95	.72	3.72	.82	3.69	.78	3.85	.87
8.	Effective classroom management	3.80	.91	4.14	.66	4.12	.73	3.81	.87	3.82	.80	3.95	.82
9.	Schools have community support	4.26	.99	4.09	.93	4.21	.89	4.24	.88	4.42	.84	4.20	.95

* All respondents for this question

Q. #	Item	Students $\bar{X}$	Students SD	Teachers $\bar{X}$	Teachers SD	Admin. $\bar{X}$	Admin. SD	BOE $\bar{X}$	BOE SD	Community $\bar{X}$	Community SD	All $\bar{X}$	All SD
10.	Principals work through and with people	3.46	1.27	4.08	.94	4.47	.76	4.02	1.01	3.95	1.10	3.80	1.15
11.	Parents feel involved and belong	3.50	1.04	3.61	.89	3.61	.97	3.72	1.01	3.80	.93	3.58	.97
12.	Open teacher pupil relationships exist	3.69	1.10	4.21	.69	4.19	.74	4.02	.79	3.90	.87	3.95	.95
13.	Orderly and coherent instruction	3.81	.85	4.15	.66	4.17	.69	3.76	.81	3.72	.85	3.95	.79
14.	Community supports student achievement	3.93	1.10	4.12	.87	4.26	.88	4.22	.90	4.28	.90	4.06	.99
15.	Students have good attendance	3.96	.89	4.18	.73	4.27	.79	4.35	.86	4.12	.83	4.09	.83
16.	Instructional goals well established	3.63	.99	4.20	.81	4.07	.99	4.12	1.06	3.68	.84	3.90	.95
17.	A low crime rate exists	4.15	1.13	4.48	.80	4.65	.75	4.49	.91	4.29	.95	4.33	.99
18.	Prepare students for the world of work	3.60	1.06	3.74	.78	3.74	1.00	3.78	.97	3.52	1.05	3.67	.95
19.	Students prepared to be good citizens	3.72	1.06	4.00	.78	4.16	.88	4.02	.87	3.78	1.00	3.86	.95
20.	Students take two or more years of science & math	4.56	.86	4.45	.82	4.70	.75	4.63	.85	4.23	.88	4.50	.85

Q. #	Item	Students		Teachers		Admin.		BOE		Community		All	
		$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
21.	School identifies academic objectives	3.82	1.05	4.21	.87	4.07	.98	4.24	1.05	3.80	1.01	4.01	.99
22.	Instructional strategies prepared by teachers	3.64	.92	4.13	.78	3.99	.73	3.85	.86	3.49	.90	3.85	.89
23.	Teachers postitive role models	3.49	1.11	4.26	.70	4.21	.68	3.92	.86	3.69	1.03	3.86	1.00
24.	Teachers have good attendance	4.49	.75	4.57	.65	4.40	.82	4.33	.93	4.28	.81	4.50	.73
25.	Clear standards of conduct are established	4.08	.96	4.26	.86	4.56	.81	4.45	.85	4.28	.93	4.20	.92
26.	School maintains safe environment	4.23	.90	4.53	.70	4.67	.76	4.56	.82	4.45	.77	4.39	.82
27.	Principals provide strong leadership	3.69	1.23	4.04	1.00	4.40	.76	3.98	1.15	4.03	.97	3.89	1.12
28.	Principals provide instructional leadership	3.49	1.24	3.82	1.04	4.10	.89	3.85	1.07	3.76	.98	3.68	1.14
29.	Ongoing assessment pupil progress	3.84	.99	4.22	.79	4.27	.85	4.08	.97	3.79	.98	4.02	.92
30.	Instructional emphasis on basic skills	3.82	.93	4.23	.78	4.36	.73	3.94	.83	3.70	1.00	4.01	.89
31.	School maintains high teacher expectations	3.80	1.03	4.34	.77	4.45	.79	4.28	.98	3.80	1.14	4.07	.97
	Number Of Respondents	899–916		782–818		78–82		84–87		126–129		2012–2062	

point of the scale (3.0). The percent of the 31 variables rated ≥ 4.0 by each respondent group is -

a. Students: 22.6%

b. Teachers: 80.6%

c. Administrators: 80.6

d. BOE members: 51.6%

e. Community adults: 29.0%

Although all variables of quality/effectiveness were rated above 4.0 by each respondent group, the five rated lowest by all respondents are listed below.

a. Students have good work ethics (3.58)

b. Parents feel involved and have a feeling of belonging to an educational partnership (3.58)

c. Schools provide emotional support (3.63)

d. Prepare students for the world of work (3.67)

e. Principals provide instructional leadership (3.68)

The lowest rated variable by each respondent group is listed below.

a. Students: Schools provide emotional support (3.29)

b. Teachers: Parents feel involved and (have a) feeling of belonging to an educational partnership (3.61)

c. Administrators: Parents feel involved and (have a) feeling of belonging to an educational partnership (3.61)

d. BOE members: Students have good work ethics (3.70)

e. Community adults: Students have good work ethics (3.52)

and

Prepare students for the world of work (3.52)

The highest rated variable by each respondent group is -

a. Students: Students take two or more years of science and math (4.56)

b. Teacher: Teachers have good attendance (4.57)

c. Administrators: School maintains a safe environment (4.67)

d. BOE members: Students take two or more years of science and math (4.63)

e. Community adults: School maintains a safe environment (4.45)

Based on calculated single value for perceived effectiveness on variables 1-31, which could range between 1 and 5, the five most effective and the five least effective school districts are profiled in Table B and C. Also, the averages on each factor in the profile for all 304 public school districts in Kansas are shown for comparison purposes. Selected data from these two tables are highlighted below.

More Effective Schools Compared to Least Effective

- administrative salaries are higher
- districts in counties with lower density
- smaller percentage of students employed immediately after high school graduation
- larger percentage pursue some type of post-secondary education after high school graduation
- much more reliance on local sources of revenue
- higher adjusted valuation per pupil
- greater total wealth per pupil
- generally, larger percent of students at all levels and in all areas exceed minimum score on Kansas Competency Tests

More Effective Schools Compared to State Average

- lower enrollment
- lower teacher salaries
- lower percentages of minority teachers and students
- lower density in counties
- higher percentage of high school graduates attend 2 or 4 year colleges
- higher percentage of high school graduates attend some type of post-secondary education
- lower dropout rate
- more reliance on local resources for revenue
- less Federal resources
- higher school district revenue and general fund operating fund expenditures per pupil
- generally, higher percentage of students at all levels and in all areas exceed minimum score on Kansas Competency Tests

Table B

Profile of Districts Perceived to be Most Effective

(high to low)
(data for 1985-86 unless otherwise indicated)

	Districts					
USD and Kansas Average	A	B	C	D	E	KS
ENROLLMENT						
Headcount	541	504	136	187	670	1,349
EDUCATION PERSONNEL						
Average years teacher experience elementary and secondary	15.6	12.1	6.0	9.9	13.2	12.8
Salaries (not including) fringe benefits)						
Superintendent:	49,500	41,678	35,000	39,012	47,000	44,729
Principals:	42,159	36,006	31,283	33,799	33,702	35,950
Teachers:	21,399	21,217	20,522	19,569	20,079	22,644
Pupil/Teacher Ratio						
Elementary	17.3	15.6	9.4	11.5	10.4	
Secondary	9.6	13.6	7.0	7.1	13.6	
			Range in Kansas - Low		5.7	
			Median		13.3	
			High		20.4	
DEMOGRAPHICS						
Sex (1984-1985 percentages)						
Teachers Female	65.1	71.4	76.5	71.4	63.2	69.0
Teachers Male	34.9	28.6	23.5	28.6	36.8	31.0
Principals Female	0.0	0.0	0.0	0.0	25.0	11.8
Principals Male	100.0	100.0	100.0	100.0	75.0	88.2
Superintendent Female	0.0	0.0	0.0	0.0	0.0	1.3
Superintendent Male	100.0	100.0	100.0	100.0	100.0	98.7
Students Female	48.5	49.0	46.0	42.0	47.0	49.6
Students Male	51.5	51.0	54.0	58.0	53.0	51.4

Race						
Teachers (Elementary and Secondary)						
American Indian	0.0	0.0	0.0	4.8	0.0	.5
Asian/Pac. Islander	0.0	0.0	0.0	0.0	0.0	.2
Hispanic	0.0	0.0	0.0	0.0	0.0	.8
Black	0.0	0.0	0.0	0.0	1.9	3.0
White	100.0	100.0	100.0	95.2	98.1	95.5
Students (Elementary and Secondary)						
American Indian	0.5	0.3	0.0	0.0	0.0	.7
Asian/Pac. Islander	0.5	0.0	0.0	1.0	0.0	1.6
Hispanic	0.9	0.3	13.0	9.6	0.0	3.4
Black	0.9	0.0	0.0	0.0	0.0	7.7
White	97.2	99.4	87.0	89.4	100.0	86.6
District Size						
(Square miles)	158	309	200	224	599	
			Range in Kansas -	Smallest	10.0	
				Median	228.5	
				Largest	992.0	
Density of County						
(Pop. per sq. mile)	16.1	24.9	6.1	6.7	6.3	29.0
GRADUATES (Percentages, after graduation from H.S.)						
Employed Full Time	21.0	10.0	0.0	9.0	14.0	21.9
Unemployed	9.0	5.0	0.0	9.0	4.0	2.6
Attend 2 yr. college	6.0	53.0	29.0	9.0	21.0	18.5
Attend 4 yr. college	52.0	12.0	14.0	55.0	40.0	38.5
Attend another type of college	3.0	0.0	7.0	9.0	0.0	1.7
Attend other post secondary (non-college)	0.0	15.0	0.0	9.0	15.0	6.6
Military Service	3.0	5.0	14.0	9.0	6.0	
All other graduates	0.0	0.0	0.0	0.0	0.0	3.7
Unknown	0.0	5.0	36.0	0.0	0.0	6.5
DROPOUTS						
% of grades 9-12	2.4	2.8	2.0	1.75	1.5	4.0

FINANCE (Sources of Revenues Percent of Total)						
Local Sources	92.0	33.0	91.0	86.0	64.0	50.5
State Sources	8.0	64.0	7.0	11.0	32.0	44.3
Federal Sources	0.0	3.0	2.0	3.0	4.0	5.2
Revenue Per Pupil	4,701	4,355	8,289	5,398	4,524	3,954
Adjusted Valuation Per Pupil	74,905	62,444	284,310	225,824	120,343	
Taxable Income Per Pupil	24,090	33,888	30,084	29,886	23,266	
Wealth Per Pupil	98,995	165,566	314,394	255,711	143,609	
Expenditures						
General Operating Fund Per Pupil	4,028	4,207	7,955	4,902	4,592	3,035
VANDALISM						
Amount of Damage	300	1,800	3,000	0	0	
SCORES Kansas Competency Test (% Exceed Min. Score)						
Grades Subject						
2 Rdg	97	97	100	100	93	88.5
2 Math	100	100	100	100	98	93.9
4 Rdg	96	94	100	100	88	84.3
4 Math	81	97	100	92	82	81.1
6 Rdg	85	95	80	100	86	84.9
6 Math	88	100	80	100	78	84.3
8 Rdg	97	95	100	100	93	91.3
8 Math	95	88	100	75	93	80.8
10 Rdg	97	97	67	82	89	86.6
10 Math	88	74	78	76	76	75.8

Table C

Profile of Districts Perceived to be Least Effective

(high to low)
(data for 1985-86 unless otherwise indicated)

	Districts					
USD and Kansas Average	A	B	C	D	E	KS
ENROLLMENT						
Headcount	673	394	495	242	302	1,349
EDUCATION PERSONNEL						
Average years teacher experience elementary and secondary	14.1	12.2	11.6	14.2	10.1	12.8
Salaries (not including) fringe benefits)						
Superintendent:	42,500	36,129	39,000	35,500	36,800	44,729
Principals:	36,875	27,098	28,233	28,350	26,081	35,950
Teachers:	23,105	20,392	19,531	18,196	20,615	22,644
Pupil/Teacher Ratio						
Elementary	15.2	10.8	14.95	9.7	12.9	
Secondary	12.2	9.7	10.9	8.8	11.5	
			Range in Kansas - Low		5.7	
			Median		13.3	
			High		20.4	
DEMOGRAPHICS						
Sex (1984-1985 percentages)						
Teachers Female	71.1	71.4	75.0	63.0	69.6	69.0
Teachers Male	28.9	28.6	25.0	37.0	30.4	31.0
Principals Female	0.0	33.3	0.0	0.0	33.3	11.8
Principals Male	100.0	66.6	100.0	100.0	66.6	88.2
Superintendent Female	0.0	0.0	0.0	0.0	100.0	1.3
Superintendent Male	100.0	100.0	100.0	100.0	0.0	98.7
Students Female	50.0	43.0	46.0	52.0	49.0	49.6
Students Male	50.0	57.0	54.0	48.0	51.0	51.4

Race						
Teachers (Elementary and Secondary)						
American Indian	0.0	0.0	0.0	0.0	0.0	.5
Asian/Pac. Islander	0.0	0.0	0.0	0.0	0.0	.2
Hispanic	0.0	0.0	0.0	0.0	0.0	.8
Black	0.0	0.0	0.0	0.0	0.0	.3
White	100.0	100.0	100.0	100.0	100.0	95.5
Students (Elementary and Secondary)						
American Indian	0.1	0.2	0.2	0.0	0.3	0.7
Asian/Pac. Islander	0.0	0.2	0.0	0.8	2.0	1.6
Hispanic	0.9	0.0	0.2	0.8	2.0	3.4
Black	0.0	0.2	0.2	0.4	0.0	7.7
White	99.0	99.4	97.5	98.0	95.7	86.6
District Size						
(Square miles)	92	256	541	437	225	
			Range in Kansas -	Smallest	10.0	
				Median	228.5	
				Largest	992.0	
Density of County						
(Pop. per sq. mile)	65.5	19.0	5.7	35	69.7	29.0
GRADUATES (Percentages, after graduation from H.S.)						
Employed Full Time	24.0	10.0	17.0	5.5	37.5	21.9
Unemployed	8.0	19.5	28.0	17.0	0.0	2.6
Attend 2 yr. college	44.0	16.0	28.0	33.0	6.2	18.5
Attend 4 yr. college	12.0	29.0	17.0	22.0	50.0	38.5
Attend another type of college	0.0	3.0	0.0	17.0	0.0	1.7
Attend other post secondary (non-college)	6.0	16.0	2.5	0.0	6.2	6.6
Military Service	6.0	16.0	2.5	5.5	0.0	
All other graduates	0.0	3.25	0.0	0.0	0.0	3.7
Unknown	0.0	3.25	5.0	0.0	0.0	6.5
DROPOUTS						
% of grades 9-12	4.0	.87	3.5	0.0	1.3	4.0

FINANCE (Sources of Revenues Percent of Total)						
Local Sources	25.0	41.0	58.0	76.0	49.0	50.5
State Sources	71.0	53.0	39.0	20.0	48.0	44.3
Federal Sources	4.0	6.0	3.0	4.0	3.0	5.2
Revenue Per Pupil	4,308	5,286	5,628	6,068	4,689	3,954
Adjusted Valuation Per Pupil	35,897	79,275	123,062	191,560	98,967	
Taxable Income Per Pupil	16,975	16,944	20,380	23,018	14,847	
Wealth Per Pupil	52,872	96,220	143,442	214,579	113,814	
Expenditures						
General Operating Fund Per Pupil	4,061	5,160	5,065	5,985	4,137	3,035
VANDALISM						
Amount of Damage	166	0	500	300	0	
SCORES Kansas Competency Test (% Exceed Min. Score)						
Grades Subject						
2 Rdg	82	100	96	100	95	88.5
2 Math	92	100	100	100	95	93.9
4 Rdg	83	72	82	87	95	84.3
4 Math	72	72	62	100	85	81.1
6 Rdg	95	87	89	96	89	84.9
6 Math	100	97	93	100	71	84.3
8 Rdg	98	96	100	100	96	91.3
8 Math	77	92	89	94	83	80.8
10 Rdg	83	95	91	88	100	86.6
10 Math	74	73	77	81	93	75.8

Table D contains summarized data on selected variables of all schools in Phase 2. The range of measures of effectiveness was from 3.48 to 4.39. All are above the mid-point (3) of the five point scale. The results of the attempt to show relationships between selected district variables and the perceived effectiveness of the schools across all groups are summarized in Table E. Two significant ($p \leq 0.05$) but fairly weak positive correlations were found between the "taxable income per pupil" and effectiveness and "wealth per pupil" and effectiveness. It should be pointed out that "wealth," as defined by the Kansas State Department of Education, is the sum of the "adjusted valuation per pupil" and the "taxable income per pupil."

Table D

SUMMARY OF OVERALL PERCEIVED SCHOOL EFFECTIVENESS
AND
RELATED DISTRICT DATA

OBSERVATION (School District)	HEADCOUNT	SIZE (SQ MI)	WEALTH (Thousands) ($'s)	EFFECTIVENESS (Range 1-5)	REVENUE PER PUPIL (Thousands) ($'s)
14	541	158	98,995	4.39	4,701
2	504	309	165,566	4.37	4,355
26	136	200	314,394	4.29	8,289
28	187	224	255,711	4.28	5,398
3	670	599	143,609	4.18	4,524
17	302	253	118,033	4.15	5,696
1	398	440	229,206	4.13	5,078
18	443	511	151,404	4.11	4,151
4	215	230	153,626	4.11	4,783
13	220	174	194,019	4.11	5,052
8	608	217	136,950	4.10	4,922
27	453	992	253,497	4.06	4,792
15	273	182	147,164	4.06	4,434
22	159	215	127,256	4.01	6,471
16	228	319	124,391	4.01	5,233
21	206	196	244,848	3.99	5,703
5	691	435	99,845	3.98	4,206
29	474	45	62,708	3.97	4,328
19	422	486	206,263	3.95	5,096
10	271	208	141,939	3.95	5,648
11	467	540	145,095	3.94	5,793
25	248	142	60,135	3.93	3,811
23	933	318	99,960	3.89	4,052
9	302	225	113,814	3.87	4,689
7	242	437	214,579	3.87	6,068
6	495	541	143,442	3.86	5,628
12	394	256	96,220	3.80	5,286
24	673	92	52,872	3.48	4,308

Table E

Correlation Coefficients Between Perceived District Effectiveness and Selected District Variables

Selected District Variables	Mean	Standard Deviation	N	Corr. Coeff.	Significance
a. Enrollment (headcount)	388.0	198.0	27	-0.2046	0.306
b. Pupil/Teacher Ratio (elementary)	13.5	2.9	27	0.0184	0.927
c. Pupil/Teacher Ratio (secondary)	9.9	2.5	27	-0.1543	0.442
d. District Size (square miles)	333.5	191.5	27	0.0287	0.887
e. Adjusted valuation per pupil ($)	130,026	59857.0	27	0.3396	0.083
f. Taxable income per pupil ($)	24,321.7	5789.4	27	0.5047	0.007*
g. Wealth per pupil ($)	156,820.8	62169.1	27	0.4456	0.020*
h. Revenue per pupil ($)	5,160.5	928.7	27	0.1580	0.431

*$p \leq 0.05$

Additional items on the PSQE addressed questions of interest related to extent of participation in extracurricular activities, plans after high school, reported high school grades, overall rating of the school, familiarity of teachers with students outside of school and non-student respondents' priorities in community improvements. The responses are summarized in Table F, as percentages and means, standard deviations and ranges as appropriate.

Clearly, students in these schools have wide participation in extracurricular activities, with a mean of > 4 and more than 50% participate in 4 or more.

Over 70% of the students intend to pursue some form of post-secondary education, i.e. vocational school or a type of college. Only 2.1% expect to look for a job in their home community, while four times that number (8.9%) plan to find a job in a nearby community, a large city in Kansas or in another state.

Few students (1.4%) report receiving grades of "D" or "F," while more than 70% usually receive "A's" or "B's." Also, more than 80% of the students gave their school an overall rating of "Average" or above. Almost 60% rated their school as "Good" or "Excellent."

Only 1.8% of the students believe that teachers do not know them at all outside of school. This compares with 50.4% who believe they are known "Very Well" by their teachers.

More than 80% of all adult respondent groups believe that extra-curricular activities are "Important" or "Very Important," while less than 2% believe they are a detriment.

Consistent with students' perceptions, adults believe that a high percentage of students will attend some type of post-secondary education.

Table F
Summary of Qualitative Questions - Percentage of Group
Perceptions of School Quality and Effectiveness
Phase - 2

Q. #	Item	Value	STUDENTS Percent		
32.	How many extracurricular activities do you participate in each year? If more than 9 mark 9 (Options = 1 through 9)	0 = None	4.7		
		1	6.7		
		2	11.8		
		3	17.1		
		4	15.2		
		5	15.1		
		6	10.3		
		7	6.4		
		8	4.3	Mean = 4.336	Std. Dev. = 2.408
		9 or more	8.3	Maximum = 9	Minimum = 0
33.	What are your plans after high school?				
	0 = Don't know		8.2		
	1 = Find a job in this community		2.1		
	2 = Find a job in nearby community		4.1		
	3 = Find job in large city in KS		2.4		
	4 = Find job in another state		2.4		
	5 = Attend vocational school		7.5		
	6 = Attend a junior/comm. college		13.3		
	7 = Attend 4 yr. college in KS		40.8		
	8 = Attend 4 yr. college in another state		14.5		
	9 = None of the above		4.7		

Percentages
STUDENTS

Q. # Item	Value	Percentage		
34. Student's usual grade				
1 = A	A	28.8		
2 = B	B	42.7		
3 = C	C	22.6		
4 = D	D	1.1		
5 = F	F	.3		
6 = Don't wish to respond		3.9		
35. Overall, rating of school				
1 = Excellent		15.3		
2 = Good		44.0		
3 = Average		32.8		
4 = Poor		4.8	Mean = 2.363	Std. Dev. = .905
5 = Terrible		3.1		
36. How well do teachers know you outside of school?				
0 = Not at all		1.8		
1 = Slightly/somewhat		11.0		
2 = Fairly well		36.9	Mean = 2.359	Std. Dev. = .746
3 = Very well		50.4		

Percentages

Q. # Item	Teachers	Admin	BOE	Community	All Adults
32. How important are extra-curricular activities?					
0 = A detriment	1.3	0	0	.8	1.4
1 = Unimportant	2.7	0	0	9.4	3.1
2 = Don't know/unsure	5.5	2.4	3.5	6.3	5.3
3 = Important	50.0	35.4	48.2	54.3	48.7
4 = Very important	39.5	59.8	47.1	27.6	39.2
Mean	3.268	3.622	3.482	3.047	3.302
Std. Dev.	.816	.580	.683	.967	.927
Maximum	4	4	4	4	4
Minimum	0	2	2	0	0

Percentages

Q. #	Item	Teachers	Admin.	BOE	Community	All Adults
33.	How do you believe students in your community would respond to this question "What are your plans after high school?"					
0 =	Don't know	12.9	11.5	6.0	14.5	12.3
1 =	Find job in this community	3.2	1.3	2.4	1.6	2.8
2 =	Find job in nearby town	11.9	12.8	9.5	7.3	11.0
3 =	Find job in large city in KS	2.8	1.3	8.3	3.2	3.2
4 =	Find job in another state	1.4	1.3	1.2	.8	1.4
5 =	Attend a vocational school	3.8	1.3	1.2	7.3	4.1
6 =	Attend a junior/comm. college	24.7	19.2	26.2	27.4	24.8
7 =	Attend a 4 yr. coll. in KS	37.6	51.3	41.7	35.5	38.1
8 =	Attend 4 yr. coll. in another state	.8	0	1.2	.8	1.1
9 =	None of the above	.9	0	2.4	1.6	1.3

Percentages

Q. # Item	Teachers	Admin.	BOE	Community	All - Adults
34. If you could improve one thing which of the following would it be ?					
1 = schools	9.7	11.1	16.5	13.3	10.6
2 = entertainment/recreation	26.3	21.0	10.6	22.7	24.9
3 = employment opportunitites after high school	44.9	44.4	62.4	55.5	46.9
4 = housing	3.0	3.7	8.2	1.6	2.7
5 = appearance of community	4.7	12.3	1.2	1.6	4.9
6 = medical services	1.2	4.9	0	2.3	1.3
7 = shopping	5.7	1.2	0	.8	4.9
8 = racial/ethnic composition of community	1.0	0	0	0	.8
9 = library services	1.2	0	0	0	1.0
10 = none of the above need improvement	0	0	0	0	0

Q. # Item	Percentages Teachers	Admin.	BOE	Community	All Adults
35. Overall rating of school					
1 = Excellent	37.0	48.1	43.0	31.8	37.1
2 = Good	50.2	45.7	48.8	43.4	48.4
3 = Average	10.2	3.7	7.0	20.9	11.6
4 = Poor	1.5	1.2	1.2	3.9	1.9
5 = Terrible	1.1	1.2	0	0	1.1
Mean =	1.796	1.617	1.674	1.969	1.816
Standard Deviation =	.769	.734	.710	.829	.794
Maximum =	5	5	5	5	5
Minimum =	1	1	1	1	1
36. How well do you believe teachers know their students outside the school					
0 = Not at all	.1	0	1.2	0	.4
1 = Slightly/somewhat	1.1	1.2	1.2	5.6	1.9
2 = Fairly well	19.9	33.7	18.6	29.4	22.2
3 = Very well	78.9	65.0	79.1	65.1	75.5
Mean =	2.775	2.637	2.756	2.595	2.728
Standard Deviation =	.452	.509	.530	.596	.512
Maximum =	3	3	3	3	3
Minimum =	0	1	0	1	0

However, adults seem to believe that a greater percentage of students will seek jobs immediately after high school in nearby towns than do student respondents.

In order of preference, the three community elements that adults would improve are listed below.

1. employment opportunities after high school (46.9%)
2. entertainment/recreation (24.9%)
3. schools (10.6%)

Each of all of the other areas (housing, appearance of community, medical services, shopping, racial/ethnic composition, and library services) were selected as the single thing they would improve by < 5% of all adults.

More than 85% of the adult respondents rate their schools "Good" or "Excellent," with only 3% believing they are "Poor" or "Terrible."

Adults in the community believe that teachers know their students outside the school, with more than 75% marking the option "Very Well."

Conclusions and Discussion

Phase 1 of the study was intended to identify the most important indicators of school quality and effectiveness across all respondent groups. In total, this was accomplished with 31 variables emerging as those most highly and consistently valued across all respondent groups. The instrument used in Phase 1 was the Indicators of School Quality and Effectiveness (ISQE). It is important to note that the respondents from rural communities with small schools are in general agreement with educational researchers, who reported the original variables (indicators) in published research reports. As a consequence, it is reasonable to conclude that rural people have the same general perceptions of what characterizes an effective/quality school as do educational researchers.

In Phase 2, all respondent groups rated their schools high with regard to these quality indicators on the Perceptions of School Quality and Effectiveness (PSQE). Not one of the 31 indicators (variables) had a mean rating at or below the mid-point (3.0) of the 5 point scale. Possibly not surprisingly, teachers and administrators were the most positive and students the least positive. However, it is concluded that all groups, including students, perceive that quality indicators are present in their schools. If there are concerns to be noted, one must conclude that students feel a need for greater emotional support, adults in the community see a need to improve the work ethic of students, and teachers and administrators perceive that parents might not feel involved nor have a feeling of belonging to an educational partnership.

In comparison, even students in the "least effective schools" in this study performed above the state average on all areas of the Kansas

Competency Test, and students pursue post-secondary education, at a rate higher than the average for the state. Reasonably, it could be concluded that they are well prepared in reading and mathematics and they feel confident to pursue higher educational challenges.

While there may be intervening variables confounding these findings, the "taxable income per pupil" and "wealth per pupil" are positively related to the perception of the quality/effectiveness of schools. In effect, this infers that wealthier districts are perceived as being more effective or quality indicators are more prevalent. This is a weak yet statistically significant relationship. Possibly just as important, school enrollment and pupil/teacher ratios (elementary and secondary) are not related to respondents' perceptions. Does this mean that they have little influence on individuals' perceptions of schools, or could it mean that these factors themselves do not reflect quality or an effective school? The reader must be cautioned that this study was not intended as a comparison between large and small schools. In fact, all of the participating school districts had relatively small enrollments and low pupil/teacher ratios.

In providing a profile between the most and the least effective schools, based on perceptions of various groups, it is concluded that the noticeable differences are relatively few. Of course, differences would be difficult to detect, since all schools in the study were rated rather high.

In view of the findings of this study, students, teachers, administrators, members of local boards of education and adults in the community perceive their schools quite positively on variables selected from research literature and confirmed as important at the local level. On other variables, for which data was derived from official, public data, these small schools have very low drop-out rates, high state competency test scores, little vandalism, teachers who know students outside the school,

students who make good grades in school, high extra-curricular activity by students, and students who expect to pursue post-secondary educational opportunities. In conclusion, these schools are given high marks by those who have the most invested and should have the greatest knowledge about their local schools. Every respondent group seemed to be satisfied that indicators of quality/effectiveness are found in their schools. External measures seem to support this perception. Obviously the fact that these small schools have expenditures per pupil that exceed by a considerable amount the state average is evident. Few would argue that this is not directly related to low enrollment and the corresponding low pupil/teacher ratio, since personnel costs are a large part of local school budgets. One should not be naive about the economic concern, but one must also strongly consider the educational advantages of schooling in small schools. Clearly, we have long recognized that services cost more for certain segments of society. Haven't we subsidized urban transportation systems, urban renewal, education for the handicapped, disadvantaged and gifted, medical services for aged, and many others? Shouldn't we also recognize that it simply costs more to educate students in sparsely populated areas? There is no evidence in this study that indicates these schools are doing an inferior job. In fact, there is some evidence that they are doing much better than average, and, very importantly, the local communities perceive them to be reflective of quality. Small schools have distinct advantages for effective schooling, if these advantages are recognized and use made of them. It may be time to consider small schools as the test ground for curricular innovations and use of technology to build on the advantages. Certainly, this study does not answer all questions, and it did not attempt to demonstrate that one size school is better than another. However, it does provide benchmark data for others who wish to pursue such an effort.